NO. 221

An Essay

on

Pneumonia Biliosa

By

Josiah R. Horn

Passed March 3d 1827

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In writing upon this subject, embarrass-ments of almost every description, present themselves to my view. Fully conscious that I am writing for the critical inspection of the greatest Physicians of which this or perhaps any country can boast; and at the same time feelingly alive to the imperfections which must inevitably attend my performance, my mind recoils at the subject, and my pen faulters in my hand. But if lenity may be extended to any, it surely will be to him, who has had to grapple with penury and misfortune, circumstances every way hostile to science and the improvement of medecine.

The disease which forms the subject of this paper, made its appearance in one of the lower districts of N. Carolina, in the winter of 1825-26. This section of country is exceedingly level, intersected by many rivulets swamps and creeks. Contiguous to those streams are many marshes, meadows and ponds. These are reservoirs of water in winter and spring; but in summer and autumn they become dry. Persons

residing near those marshes and ponds, especially on the north-east side, seldom escape the autumnal fever.

The spring and fore-part of the summer of 1825 were remarkable for the heavy & continued rains which fell in those seasons: and the latter part of summer and autumn, were equally so, for the excessive heat and drought. During this period the Bilious Fever made its appearance. Many of the inhabitants were sick, but no peculiar malignant character was observed in the disease.

The months of September, October, and November passed away, and with them it was fondly hoped our sickly atmosphere had fled. Lately, and as he thought, securely escaped the ravages of the autumnal fever, the husbandman returned to glean the fruit of his summer toil, and prepare to enjoy, during the reign of winter's night, the ease of domestic tranquility. But it was a fallacious hope. Scarcely had winter made its entrance when our citizens were

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alarmed by the appearance of a new and terrible complaint. It was supposed to be Phrenitis in a highly aggravated form. As this disease was the precursor of the one of which I am to treat, and which, I have no doubt, had its origin in the same source, I shall give two cases which came under my observation.

Miss — a girl about 14 years of age complained of pain in the eyes more particularly of the right. The integuments of the face were swollen. She had been complaining all the morning and afternoon; but no particular danger being apprehended, the family retired to rest. About two o'clock they were alarmed with an idea that the patient was dying. From that time the attendants represented her as having had convulsive fits. At 5 o'clk in the morning I saw her. Her pulse was weak irregular and from 110 to 120 in a minute. Her cheeks were suffused and her countenance wild. A constant moaning, with a grinding of the teeth, was observable. Subsultus tendinum and picking the bed covering also marked

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her case. She had lost the power of speech and had swal=
=lowed nothing from the time she became worse. In
this situation she continued a few hours and died.

Mrs — a married lady, far advanced in preg=
=nancy, and about 20 years of age, was afflicted for
two or three days with a pain in the ear. On the evening
of the third day, she stated to her companion; that she
felt the pain go suddenly up into her head. From
that time she became worse, soon lost her speech,
and was delirious. All the symptoms enumerated in
the first case soon made their appearance in this.
There was however this difference. In this case the pulse
was full with some degree of preternatural strength.
I saw her at 8 in the morning. She had already lost
half pound of blood and I immediately took away
one pound more. It only had the effect of weaken=
=ing the pulse. Blister Plasters were applied to the ex=
=tremities, and to the back of the neck. Although
they drew well, yet she continued to get worse, and
in a few hours she miscarried and died.

It is apparent that the disease in the head in these two cases (and a number of others of the same nature occurred) originated from the disease of the eye, in the one case, and the disease of the ear, in the other. By what process it removed from the parts originally affected, to the head, is difficult to tell, unless it be by that sympathy or consent of parts, which is known to exist as one of the laws of the animal economy. But it is my opinion, and which I shall endeavour further to illustrate, that the disease of the eyes, in the one case, and of the ears, in the other, originated from irritation of the stomach. That there is an intimate sympathetic union between those organs and the stomach, is well known to modern pathologists. Almost every person has experienced the head ache, originating from foul accumulations in the stomach, which did not however, produce the slightest gastric disorder. So well acquainted are the common people of Carolina with this fact, that they uniformly resort to cathartics, for a remedy. To enter

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into a detail of the arguments by which this doc=trine is supported, would be an idle waste of time. That the diseases of the head and of the organs of seeing and hearing very often have their origin in the stomach, we shall assume as a fact, and endeavour to prove, that this was the case, in the disease in question by the following cases and observations.

A lad, about ten years of age, and the brother of the first described patient, living in the same house, was taken with a severe pain of the eyes. Swelling of the face soon came on attended with febrile action in the pulse. The symptoms being precisely the same as those with which his sister was taken, and whose remains, still taught the family the sad effect of delaying too long to apply for medical aid (a circum=stance not unfrequent in the country) it of course excited considerable anxiety. I saw him in six hours after he was taken ill. He immediately took ten grains of calomel with twenty of Jalap — which, operating plentifully, afforded complete re=

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Mr— a young man of the family of the married lady, was seized with a violent pain in the head, accompanied with rigours and alternate feelings of heat & cold, while attending the funeral ceremonies. He was ordered a strong cathartic & soon recovered. It cannot fail to strike the attention of the observer, that in all probability, ... if the two first named patients could have received the benefit of evacuants, before the head became affected, they might have survived. I have seen many cases of Phrenitis, and after the disease was fully formed, it invariably proved fatal. No doubt it often requires venesection as the principal remedy. But I have no doubt, that in its forming state, it is often connected with, if not dependant on gastric disorder; and I should not hesitate, in cases like the above, to prescribe the most powerful evacuants. If I am not deceived in the pathology of the disease, this would certainly be, the most appropriate remedy.

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Soon after the occurrence of the above cases, our disease fully developed itself. Persons of every description, were the subjects of its wide devouring influence. It paid no regard to sex, age, calling, or condition of life. It was, however, found upon comparison, that those persons who had been afflicted with the bilious fever, during the fall, were more liable to it than others. And it was further observed, that it was most frequent, and most fatal, in that section of country thro' which ran a large swamp embracing much marshy land.

The disease was generally ushered in by a chill. In some the chill would be preceded by indisposition for a day or two, the patient complaining of wandering pains, weariness or lassitude on the slightest exertion, a loss of appetite, and occasional nausea. At other times however, the first intimation which the patient would have of approaching disease, would be, a sensation of unnatural cold accompanied with pain of the head, back, & side, and very often, in the

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pit of the stomach. The chill usually was of short duration. To it succeeded a sensation of heat both of the skin & stomach; and the patient now began to complain of shortness of breath accompanied with more or less pain on inspiration. The cheeks were flushed, the eyes watery, and the patient appeared and spoke, as if he had taken a bad cold. The throat became exceedingly sore, and deglutition was performed with difficulty. One thing was particularly remarked in many cases, that when the patient was raised up out of bed, he would pant for breath as one breathing in the last agonies. This however was not always the case. A troublesome cough never failed to harrass the patient. The sensations of heat and cold, would succeed each other, several times during the day and night. The tongue was usually white, a little streaked with yellow in the centre. It was however, now and then, covered with a yellow scurf from the commencement. The pulse was variable. Sometimes it would be soft, small, irregular and exceedingly fast.

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At other times it would be soft, round, and full. It seldom had any preternatural strength in it. Copious perspiration would generally succeed the sensations of heat & cold, but they seemed rather to aggravate the disease. These symptoms continuing, the patient rapidly declined; and usually died, in great agony, in a very few days.

A full and free expectoration of phlegm, a copious discharge of urine, possessing a peculiar sacharine odour, depositing a lateritious sediment; and a general abatement of the symptoms, were prognostic of a recovery. On the contrary, scanty & high coloured urine, copious perspiration, and increased difficult breathing, marked its fatal termination.

The cough, soreness of the fauces and difficult deglutition, pain of the side or stomach, with a quick, soft and frequent pulse, were the distinguishing symptoms of this disease.

It differed from our common Bilious Fever, in the following particulars. In Pneumonia Biliosa there were,

invariably, affections of the chest & fauces. The patient either complained of pain at the end of the sternum, or about the middle of the fifth or sixth rib; and this pain was much increased by inspiration. The patient complained of heat and cold several times in the day, and could not bear exposure to cool air. These are symptoms, which separately, seldom appear, and conjointly, never are seen in our autumnal Bilious Fever. It was distinguishable from Pleurisy, in the absence of the severe, constant, and pungent pain of the side; and in the want of that full, tense and corded pulse, which so invariably attends that complaint. Added to this, in Pneumonia Biliosa, there was much complaint of the head & back. I have called it Bilious Pleurisy, because, in many of its symptoms, it partook of the nature of both complaints. Yet I am by no means tenacious of the name, and am ready to give it up, provided a better can be substituted.

I shall now proceed to enumerate the different

remedies used in this complaint, and to point out the effect of each.

1 Blood letting.

In the commencement of this complaint, venesection was resorted to, under the conviction, that it was owing to inflammation in the organs affected, produced by cold. I must confess, that this pathology adopted by myself and others, was the source of injury. The Patients that I bled to any extent died. Nor was the remedy more unfortunate in my hands, than in the hands of others. Many were the unfortunate victims of this miserable pathology. Both in the hands of Physicians and private individuals, venesection, carried to any extent, was fatal. I neither saw, nor heard of a case, where the Patient lost more than a pint of blood, but that death, was the final result. In the thinly settled parts of our country, many private individuals become bleeders; and it is usual with them, to bleed freely, in all our winter complaints resembling the pleurisy. Hence, venesection was resorted to in those districts, long after its sad effects were discovered by myself - and here, it was equally fatal. It is true, that the loss

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of blood was followed by apparent mitigation of the sufferings of the patient. But it is equally true, that the most alarming symptoms, soon taught the unfortunate sufferer, that his case was new. But this will be more apparent by the following cases and observations.

Mr. — a young man, of a plethoric habit, found himself unwell in the morning with a soreness of the fauces. He was soon taken with a chill, which was succeeded by alternate feelings of heat and cold. I saw him in the afternoon. At that time he complained of great pain in the head, back, and side, with great difficulty in swallowing. The face was flushed, the tongue milky, tinged with yellow in the centre, a considerable secretion of the eyes, and the pulse was soft, quick, and slightly irregular. Eight ounces of blood were taken from the arm; and, for a few minutes, he was apparently relieved. But in a very short time, alarming symptoms of syncope came on, accompanied by profuse perspiration. He then took half an ounce of Cr: Tartar, and I left him. At night I saw him again. His pulse had become exceedly small and fast, and there was great mos=

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tration of strength. His medicine had produced a few very dark and fœtid evacuations. A blister, embracing the thorax, was drawn, and sinapisms were applied to the extremities. A teaspoonful of paregoric was given him: he continued however to get worse, and died next morning. The other case, which terminated fatally, only differed from the above, in the strength of the pulse, and the duration of the complaint. He was a young man of a meagre habit. His pulse was full with some preternatural strength. He was blooded, but got no better. Another Physician was called in, who repeated the Bleeding. He continued to get worse, and in about ten days he died.

The third patient which I saw was Mrs. a lady of a full plethoric habit. Complained of great soreness of the throat, difficult deglutition, pain in the head, back, and side. The face was flushed, the eyes suffused with tears, and the conjunctiva a little injected. She was restless and inclined to be delirious. The pulse was full, round, and about 90 to the minute. The tongue as usual, was a little white

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streaked with yellow. I opened a vein and kept my fingers on the pulse: Perceiving that the pulse became weaker, the vein was immediately stopped; and altho only two ounces were taken away, yet the patient was evidently worse. I was now determined to alter my plan of treatment, and resorted to

Purging.

A brisk cathartic was immediately given, and after its operation, I had the pleasure to find my patient better. At bed time a grain of opium was prescribed. In the morning, reported to have passed a good night. An exacerbation coming on about 12 o'ck., an other cathartic was given +, which brought away copious, dark, tarry like stools; and at night the opiate was repeated. In the morning she reported to have past a good night; the cathartic however was repeated, which, continuing to bring away dark fœtid stools, the cathartic, with short intermissions, was kept up a day or two, by the frequent exhibition ‡

+ ℞ Calomel gr XV
Jalap gr XX m.
+ ℞ Sulp: Magne: ℥ IV
Calcen: Magn: ʒ I m.

‡ ℞ oleum Ricini ʒ I
℞ Rhe: Pal: gr X repeated every two hours till it operated.
℞ Seidlitz — a dose one in 2 hours till they operate

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of laxatives; every now and then giving calomel conjoined. Blisters were now applied over the affected side and to the extremities; and calomel,* joined with opium, was given for a few days, when, the gums becoming sore, the disease gave way, and the patient soon recovered her health.

I now resorted to purgatives in every case that came under my observation; and, have the satisfaction to state, that I never once regretted their prescription. One thing was observable in a majority of cases, that the first cathartic would only produce stools of the common appearance, while the second, seldom failed, to produce the dark fœtid stools as above. That they were not useful, I cannot permit myself to believe, having prescribed them in upwards of fifty cases, of this disease, and with unexampled success. For, altho' the disease raged all January, February, and March, yet I lost but one patient during that period (and in him it terminated in Phthisis Pulmonalis). I mention this circumstance to show, that the prejudices existing against the use of purgatives in the affections of the chest, are un-

* ℞ calomel gr X
opium gr V
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founded, at least so far as our desease is concerned.

But that there is a proper time to stop, as well as to commence the purgative plan, is a fact, which cannot be too strongly rivited on the mind. Purges, when carried beyond the extent that is necessary to remove the source of irritation in the stomach and bowels, become themselves the cause of irritation, and thus increase the desease, they were intended to relieve. This I had often observed in our autumnal fevers; and have no doubt but that many valuable lives are lost, by a too free indulgence, in the use of purgative medicines. The rules which experience had taught me to observe in Bilious fevers, I carefully remembered in this. When ever the stools became watery, mixed with a dark brown disfloid substance, not unaptly compared to the scrapings of animals bowels, purging was laid aside at least for the present, and nutritive diet with mucilaginous drinks were substituted. In forming an opinion of the propriety of continuing to purge, the practitioner will take into the account, the state of the system, the appearance of the tongue, the effect of the former purgative,

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as well as the appearance of the stools. But he will often find, that after desisting a day or two, he may safely recur to them again. Of course, much must be left to the judgement and experience of the practitioner, who, taking advantage of circumstances, will apply his remedies accordingly. But as much as we trusted to purgatives, and as highly useful as they were in removing the source of irritation or disease, yet disease once excited in parts, often exist independant of the cause which gave them birth, and hence, we were compelled to resort to

Opium

To take off irritation in the different organs, excited by the presence of feculent matter in the stomach and bowels. Opium in this complaint was a sovereign remedy. I had been in the habit of exhibiting this article, perhaps more freely than most practitioners, and, I had thought with decided advantage: but, I had never seen it, so completely palliative if not curative. It relieved the cough, dyspnoea, pains of the head, back, and side; and induced the most salutary sleep, from which the patient awoke

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greatly refreshed. But in the exhibition of this article the utmost attention must be paid to the quantity. By giving too much, we unnecessarily relax the system, disorder the digestive organs, and bring on very unpleasant sweats. On the contrary, by not giving enough to sooth the pain, tranquilise the mind, and calm the system, we do harm, by increasing, instead of diminishing the action of the system. It must however be acknowledged, that no precise and definite rules can be laid down by which we can always decide with certainty, on the quantity of opium necessary to answer the indication; since, it requires much more in some constitutions than in others. I had, or thought I had, discovered, that it required more in general in the male than in the female sex. This I judged was owing to the greater degree of action to be overcome in the one sex than in the other. Proceeding upon this suggestion, it was my custom to give larger doses to the plethoric, with a full, round, tho soft pulse, than what I did to the weak, feeble, and debilitated constitutions, attended with a small, frequent, and irregular

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pulse; other circumstances being the same. Whether the theory be true or false, I am persuaded, the practice is both sound and correct. It was customary to join calomel with the opium, from half to a grain of the latter to one of the former; and this dose was repeated once in two hours till it had its desired effect. From several experiments, I was fully convinced, that the present good effect of the medicine, was entirely owing to the opium. After the first violent symptoms were subdued the conjoined articles were still continued, tho' repeated at longer intervals as in the third case related above. The pains however usually returned (tho' in general much mitigated) with the exacerbation of the disease, and then we resorted to

Blisters.

Blisters as might be expected in such cases afforded great relief. They were placed as nearly as could be over the parts affected; but when a constitutional impression was desirable, they were also applied to the extremities. The whole process of cure was assisted by

Expectorants and Tonics.

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The Seneca was given in this complaint, and I think with the most decided advantage. Between the times of giving the cathartic medicine, and, when symptoms of debility required it, constantly, the patient was directed to take a table spoonful of the medicine prepared as below:: once in three or four hours. This medicine agreed well with the stomach, and produced a gentle excitement with a moderate perspiration. It has been mentioned, that profuse perspiration was among the alarming symptoms of this disease - and yet seneca, a powerful sudorific, was prescribed. I can say however, that so far from increasing the diaphoresis it seemed to diminish it. Did not the perspiration proceed from a relaxed condition of the capillaries? and did not the seneca and columbo diminish it by stimulating the arterial system to increased action? At least this was my view of it.

Since writing the above a friend has placed in my hands the 35 no: of the medical recorder, containing Dr Cartwright's paper on Pneumonia Biliosa. I have

℞ Bruised seneca ℥i
Pul: Colum ℥j, add a pint of water simmer it to 8 ℥ and then strain

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carefully read, as far as published, what he has written on this subject; and have been forced to the conclusion, that the Pneumonia Biliosa, of Louisiana & Mississippi, is not the Bilious Pleurisy of Carolina - at least as it prevailed last Winter. To point out the difference would be a useless waste of time.

I have now written what I had to say of our late winter epidemic. I neither claim nor arrogate to myself any new discovery. The method of cure was plainly indicated by Professor Chapman, in his excellent book on Materia Medica and Therapeutics. If I may have added any thing to that which was already known I shall have accomplished the utmost of my expectations.

Philadelphia October - 1826

In